UAB "LT Biotech"

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Fetal Bovine Serum, Collected in South America, Dialysed 500 ml LTFBS-SA500Di

Fetal Bovine Serum, Collected in South America, Dialysed 100 ml LTFBS-SA100Di

Product Description

Serum is the blood component that can be obtained after coagulation and by removing cellular components. Besides serum proteins it contains, e.g. growth factors, amino acids and hormones. This comprehensive mix makes serum one of the most important supplements, supporting cells to grow and proliferate *in vitro* cell culture.
Of special interest is the fetal bovine serum (FBS). It is especially rich in growth factors and is particularly low in anti- bodies, which may influence the cell culture work.

While whole serum is acceptable for routine processes, studies involving nutritional parameters or incorporation of labeled material (e.g. radioactive amino acids) require the precise removal of certain constituents. The most com- monly used method for removal of these constituents is dialysis of whole serum. Dialysis is performed with a cut off of 10 kDa.

Product	Origin	Volume	Cat. No.
FBS Dialysed	Collected in South America	100 ml	LTFBS-SA100Di
FBS Dialysed	Collected in South America	500 ml	LTFBS-SA500Di

Product Specifications

pH	6.8 – 8.2
Osmolality	240 – 340 mOsm/kg
Endotoxin	As reported
Total Protein	3.0 – 4.5 g/dl
Glucose	As reported
Albumin	As reported
Hemoglobin	≤ 25 mg/dl
Mycoplasma	Not detected
Virus tested for	PI-3, BVDV, BVDV-AB, BHV-I
Sterility	Tested
Storage	Store at ≤-15°C

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Additional optional treatments

Heat inactivation

Heat inactivation will inactivate the complement system, antibodies and other active enzymes. It has to be done in a carefully controlled process in order to avoid damaging the cell growth promoting properties of the serum and reduc- ing the formation of unwanted precipitates.
The process involves heating the serum in a shaking water bath at exactly +56°C for 30 minutes. The shaking will help avoid the formation of protein and other forms of precipitates. After 30 minutes the serum is then cooled back down to room temperature as quickly as possible to avoid excessive exposure to heat which can damage e.g. growth factors and vitamins.

Gamma irradiation

LT Biotech has established process parameters and controls for maximum inactivation of contaminants by an innovative gamma irradiation process in small sized boxes at 25 – 35kGy. When FBS bottles are arranged in a pallet during gamma irradiation, high irradiation doses (58 kGy) are necessary to irradiate the centrally located bottles with the required does (>30 kGy). This and the associated higher temperatures may affect the serum quality. If the irradi- ation is performed in single boxes, the maximum does of irradiation is performed in single boxes, the maximum dose of irradiation does not exceed 38.7 kGy. Gentle irradiation as used by LT Biotech is less likely to affect final serum quality.

Quality control

Only sera batches which pass our strict quality control are released for sale. Standard parameters which are deter- mined include pH, osmolality, content of protein, albumin, IgG and hemoglobin, endotoxin level, sterility, myco- plasma detection and virus testing.

Precautions and Disclaimer

This product is for research use only. Please consult the Material Safety Data Sheet for information regarding hazards and safe handling practices.